National Aeronautics and Space Administration
Ames Research Center
Moffett Field, California 94035-1000

Justification for Other than Full and Open Competition

[FAR 6.303-2(b)(1)]

Summary Information:

Initiating Office:	NASA Ames Research Center Engineering Systems Division, (Code RE)
Purchase Request No.:	4200456867
Procurement Title:	Engineering, Design, and Fabrication Services
Total Estimated Value:	Value of **FOIA Ex. 5** is Required
Period of Performance:	January 1, 2013 through June 30, 2014 (One Year Base with Six One-Month Options)
Statutory Authority: [FAR 6.303-2(b)(4)]	10 USC 2304(c)(1), *Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements*

This Justification for Other Than Full and Open Competition (JOFOC) has been prepared in accordance with the requirements of Federal Acquisition Regulation (FAR) 6.303 and NASA FAR Supplement (NFS) 1806.303.

Detailed Information:

A. Nature and/or description of the action being approved. [FAR 6.303-2(b)(2)]

NASA Ames Research Center (ARC) awarded a bridge contract for Engineering, Design, and Fabrication Services to ASRC Research and Technology Solutions (ARTS) on December 20, 2011 based on an approved JOFOC by the Head of the Contracting Activity. The bridge contract was awarded as a single award Indefinite Delivery/Indefinite Quantity (IDIQ) contract with a maximum Cost Plus Fixed Fee value of **FOIA Ex. 5** for a period of 12 months and 12 days (December 20, 2011 through December 31, 2012). The purpose of the bridge contract was to provide continued critical engineering support in the areas of project management, systems engineering, design and development, fabrication, integration and testing, operations, technical writing, and configuration management while a new procurement (Project and Engineering Support Services (PESS)) was being completed.

NASA ARC proposes to negotiate a sole source contract modification to the bridge contract NNA12AA24C with ARTS to extend the potential period of performance for an additional 18 months (one year base with six one month options) and to increase the contract maximum value by **FOIA Ex. 5**. The reason for the extension is to 1) allow completion of the PESS procurement which has an anticipated award date of May 2013, and 2) continue to provide key engineering support for six critical programs and projects list below in Item B. beyond the award of PESS. The total period performance of the bridge contract, inclusive of all options and with the maximum 18 month extension, will be 2 years, 6 months, and 12 days. As described below in Item B, the terms of the bridge contract do allow orders placed within the contract ordering period to be extended for up to one additional year if the Contracting Officer determines that performance of the order cannot reasonably transitioned to another procurement vehicle; as also described below in Item B it is the intent of the Contracting Officer to minimize the use of this potential extension to the extent practicable.

B. Description of the supplies or services required to meet the agency's needs (including estimated value). [FAR 6.303-2(b)(3)]

The extension of the bridge contract will enable the Engineering Directorate (Code R) to continue to obtain critical engineering support in the areas of project management, systems engineering, design and development, fabrication, integration and testing, operations, technical writing, and configuration management (1) while the PESS procurement is completed, and (2) provide continuity of engineering support for six critical programs and projects beyond the award of PESS. These services are critical to ARC and to supporting the various NASA programs and projects. The estimated value of the services for this potential 18 month extension is approximately **FOIA Ex. 5** based on the Government's independent cost estimate (See Attachment 1). The independent cost estimate was developed based on technical review of labor and materials anticipated to be necessary for continued performance of current and anticipated engineering support through June 30, 2014.

1. Completion of the PESS Procurement

PESS will provide support for project management and engineering needs at the Center. PESS is not a follow on to the bridge contract; however, without extending the bridge contract until PESS is completed, ARC will not have the engineering support required to provide continuity of engineering services for critical programs and projects. The slip in the PESS award schedule was due to a number of factors; e.g., the technical organization changed the Statement of Work approach, the Chair for the Source Evaluation Board (SEB) was replaced, and new technical members were added to the SEB. Based on the revised PESS award schedule, the final Request for Proposal was released on November 13, 2012 with an anticipated award in May 2013. The bridge contract needs to be extended to allow ARC the required time to complete the procurement process including phase-in/phase-out. Once PESS is completed, the majority of the requirements currently supported by the bridge contract will transition over to PESS if engineering support is still required for those requirements.

2. Continuity of Critical Engineering Support Task Orders

The bridge contract must be extended beyond the anticipated PESS award date to ensure uninterrupted support for the six critical programs and projects, listed below, and to prevent schedule and cost impacts especially in the case of the Lunar Atmosphere Dust Environment Explorer (LADEE) Project. Most of the projects are a variety of small satellite and Nanosat projects which are considered high risk as well as schedule and budget constrained. Currently these six projects are scheduled to launch by December 2013; however, some of these projects' launch dates may slip. Therefore the extension will extend the bridge contract through December 2013 with a few option months (up through June 2014) to allow for continued performance if there are schedule delays.

Listed below are the six critical program and project requirements currently being supported by the bridge contract that require continued support beyond the anticipated PESS award date of May 2013 to avoid any adverse impact to the scheduled launch dates.

First, the success of LADEE is very important to ARC and NASA. This project is entering its last critical integration and testing phase before its scheduled launch in August 2013 and will continue on-orbit operations for approximately six months after the launch. It is currently being supported under the bridge contract. Originally, the LADEE project launch was scheduled in 2012 with continued on-orbit operations through December 2012. However, there have been slips in the launch schedule including the Integration and Test phase which ARTS is supporting. The project is currently in the integration and test phase, but the spacecraft has just begun environmental testing. ARTS is currently working on critical tasks for LADEE which include Mechanical Ground Support Equipment Design; Integration and Testing; Thermal Engineering Design; EEE Parts Control; Prototype and Coupon Testing; Machining and Manufacturing; and Guidance, Navigation and Control Design. In order for LADEE to be successful during the critical time of Integration and Testing, and preparing for launch, there must be continuity of highly specialized services and knowledge from the design and development of the spacecraft during Integration and

Testing, and through launch, commissioning and operations. This is critical to LADEE's success. The experience and historical knowledge of detailed design trade-offs, parts and materials selection, manufacturing processes, controls algorithm development, and thermal design and spacecraft operability are critical in performing spacecraft and observatory integration and testing, as well as in solving engineering issues during integration and testing, launch operations and spacecraft commissioning. If a technical issue arises, experienced Contractor staff have the knowledge as to why certain design and operational decisions were made and are needed to help resolve the technical issues in a timely manner. Without ARTS' highly specialized services, the LADEE project schedule will suffer and the launch date of August 2013 may be impacted.

The second two projects, CubeSat Hydrometric Atmospheric Radiometer Mission (CHARM) and Edison Demonstration of Smallsat Networks (EDSN) are scheduled for launch December 2013, and September 2013, respectively. CHARM is a spacecraft that will carry a cross track radiometer payload and EDSN is a Small Satellite Network Demonstration. Both projects are in the middle of design and by the time PESS is awarded in May, 2013, they will be going into integration and testing. Similar to LADEE, there must be continuity of highly specialized services and knowledge from the design and development of the spacecraft(s) during Integration and Testing, and through launch, commissioning and operations. The experience and historical knowledge of detailed design trade-offs, parts and materials selection, and manufacturing processes are critical in performing spacecraft integration and testing, as well as in solving engineering issues during integration and testing, spacecraft commissioning and launch operations. If a technical issue arises, experienced Contractor staff have the knowledge as to why certain design and operational decisions were made and are needed to help resolve the technical issues in a timely manner.

The last three projects listed below will be reviewed by Code R when PESS is awarded to determine if these projects can be transitioned over in their entirety or parts of supported requirements to PESS without any significant risk to schedule and cost.

Nano satellite Launch Adapter System (NLAS) – NanoSat deployer, first launch June 2013 with continued deliveries throughout 2013
SporeSat – Spacecraft to carry cell gravity sensing payload, launch October 2013
EcAMSat – Spacecraft to carry payload to understand bacterial antibiotic resistance in microgravity, not manifested yet, but need to complete in 2013

Although there presumably are contractors with engineers capable of performing similar types of engineering requirements, there are no contractors that can do so for the above six programs and projects within the required timeframe, program or project budget limitations, and with the necessary and critical historical technical knowledge of the systems. Substantial duplication of costs would occur in awarding to a potential new contractor to complete the requirements for these six programs and projects. Costs that would be duplicated include those associated with start-up and learning activities required to ensure that a new contractor has proper knowledge of the work requirements necessary to support these highly specialized and critical ARC engineering requirements. These costs are estimated at more than **FOIA Ex. 5** for all of the six programs and projects. In addition to the duplication of costs, the lapse in critical services that would be a result from competing this contract would cause unacceptable disruption in engineering support services. ARTS has about 32 different engineers working on the six programs and projects listed above. Some engineers are working on a single task and others are working on several tasks.

If any of the critical programs and projects listed above slip beyond the extension date of June 30, 2014, the terms of the bridge contract do allow orders placed within the contract ordering period to be extended for up to one year past the end of the ordering period if the Contracting Officer determines that performance of the order cannot reasonably transitioned to another procurement vehicle. It is the intent of the Contracting Officer; however, to minimize the use of this potential extension to the extent practicable, in the interest of maximizing competition.

C. An identification of the statutory authority permitting other than full and open competition. [FAR 6.303-2(b)(4)]

The statutory authority for this extension is 10 USC 2304(c)(1), *Only One Responsible Source and No Other Supplies or Services Will Satisfy Agency Requirements.*

D. Demonstration of the proposed contractor's unique qualification or the nature of the acquisition requires use of the authority cited. [FAR 6.303-2(b)(5)]

In accordance with FAR 6.302-1 (a)(2)(iii), for DoD, NASA and the Coast Guard, services may be deemed to be available only from the original source in the case of follow-on contracts for the continued provision of highly specialized services when it is likely that award to any other source would result in substantial duplication of cost to the Government that is not expected to be recovered through competition, or unacceptable delays in fulfilling the agency's requirements.

As addressed in Item B above, the 18-month extension to the current period of performance of the bridge contract is necessary to provide continued support of mission critical projects pending completion of the PESS procurement and continuity to six critical programs and projects beyond the PESS award. ARTS has the unique base of technical knowledge and experience; including the required historical knowledge of LADEE, and the NanoSat programs and projects in developing detailed design trade-offs, spares and materials selection, manufacturing processes, controls algorithm development, thermal design and spacecraft operability that are critical in performing spacecraft and observatory integration and testing, as well as in solving engineering issues during launch operations and spacecraft commissioning. A change in contractor prior to the completion of key milestones would severely impact these programs and projects. ARTS has clearly demonstrated that they possess the highly specialized capabilities and skills necessary to accomplish the requirements described herein.

Although ARC is working on a new procurement (PESS), which has a projected award date of May 2013, the extension to the bridge contract is necessary to ensure the technical expertise and historical knowledge required to support the critical programs and projects listed in Item B continues through December 2013. Each of these requirements has key milestones which need to be accomplished by ARC. In addition, the bridge contract is approaching the maximum contract value; therefore, support for these projects and programs cannot continue without the extension in place to provide critical support and prevent any unacceptable delays in completing key milestones.

Any slips in these projects' critical milestones would seriously impact the projects that ARC supports. The result of a separate competition and award for this remaining period of time would be a substantial duplication of cost (including those associated directly with a re-procurement and those learning-curve costs associated with the transition to a new contractor) to the Government that could not be recovered, and disruption and unacceptable delays that would adversely affect the seamless continuity of contract services, which are critical to support ARC and NASA's missions.

As stated above in Section B, if this extension to ARTS for these highly specialized mission critical services were not awarded as described herein, a substantial duplication of costs to the Government, as well as unacceptable delays in the performance of these critical contract requirements, would result.

E. Description of efforts made to ensure that offers are solicited from as many potential sources as is practicable, including whether a notice was or will be publicized as required by FAR Subpart 5.2 and, if not, which exception under 5.202 applies. [FAR 6.303-2(b)(6)]

In accordance with Part 5.2 of the FAR, a synopsis for this extension was posted on October 24, 2012 through the Federal Business Opportunities (FedBizOpps) to inform the public of NASA's intent to extend the bridge contract NNA12AA24C, with ARTS to allow completion of the PESS procurement and continue to provide critical engineering support for a few existing task orders beyond the award of PESS. The synopsis noted an extension of an additional 18 months. The synopsis provided instructions for

interested parties to submit capabilities and qualifications to perform the effort to the Contracting Officer. To date, no capability/qualifications have been received.

F. A determination by the Contracting Officer that the anticipated cost to the Government will be fair and reasonable. [FAR 6.303-2(b)(7)]

Upon receipt of a cost proposal from ARTS, an evaluation of the proposal will be conducted in accordance with FAR Part 15.404, Proposal Analysis, to ensure that the cost to the Government is fair and reasonable. The proposal analysis will ensure that the final agreed-to Cost Plus Fixed Fee value is fair and reasonable. Analysis will include the appropriate cost and price evaluation techniques. Prenegotiation objectives will be prepared prior to the initiation of negotiations and will be in accordance with FAR Part 15.406-1, Prenegotiation Objectives.

G. Description of the market research conducted and the results or a statement of the reason market research was not conducted. [FAR 6.303-2(b)(8)]

Market research was conducted in support of the decision to extend the bridge contract to ARTS, because of the short timeframe to place the modification (less than two months) to prevent any major disruption to support of critical NASA programs and projects. Based on Code R's technical knowledge of the current requirements and necessary capabilities required to support LADEE and other schedules listed in Item B. above, there are no known companies that have the ability to quickly transition in a short period (less than two months) without adversely impacting the program and project milestones. A notice to FedBizOpps was published to announce NASA ARC's intentions to extend the bridge contract. As stated in Item E, no capability/qualifications have been received in response to the synopsis.

H. Any other facts supporting the use of other than full and open competition. [FAR 6.303-2(b)(9)]

The Engineering Systems Division has determined that ARTS is highly qualified to perform the proposed extension to the bridge contract at ARC through the extended period covered herein – and is, as outlined above, the only responsible source reasonably capable of supporting critical programs and projects while the PESS procurement is completed and continue to provide critical engineering support for a few existing task orders beyond the award of PESS. As stated above in Section B, if the critical program and project task orders slip beyond June 2014, the terms of the bridge contract do allow orders placed within the contract ordering period to be extended for up to one year past the end of the ordering period.

Under the bridge contract, ARTS is performing at an excellent level in the areas of technical, schedule, quality, safety and cost.

I. Listing of the sources, if any, that expressed, in writing, an interest in the acquisition. [FAR 6.303-2(b)(10)]

A synopsis was issued on October 24, 2012 through FedBizOpps. To date, no capability/qualifications have been received.

J. Statement of the actions, if any, the agency may take to remove or overcome any barriers to competition before any subsequent acquisition for the supplies or services required. [FAR 6.303-2(b)(11)]

Currently, ARC is in the process of conducting a new competitive procurement for PESS and the anticipating award in May 2013. PESS will provide research and development for new NASA and ARC programs and projects by providing support in the areas engineering, systems engineering, design and development, fabrication, testing, mission operations, project management, and project management. PESS may provide support to new requirements for the critical projects listed in Item B after PESS is awarded.

However, the key project support being provided by ARTS addressed in Item B is currently necessary to ensure no slip in project schedules or increased project costs. As stated above, ARTS is providing support in the design, fabrication and integration of critical components, which cannot be transitioned to a new contractor without the possibility experiencing unacceptable delays. Again, we are currently forecasting based on key technical milestones and launch schedule dates that LADEE, CHARM and EDSN will need to continue on the bridge contract with ARTS. However for NLAS, SporeSat, and EcAMSat, we will review key technical milestones and launch schedule dates to enhance competition by transitioning support of requirements to PESS when appropriate if the risk in impacting schedule and cost can be sufficiently mitigated.

For the foregoing reasons, the extension to the bridge contract for highly specialized services needs to be awarded to the incumbent, ARTS, to provide continued critical engineering support in the areas of project management, systems engineering, design and development, fabrication, integration and testing, operations, technical writing, and configuration management in order to prevent any unacceptable delays to critical programs and projects and to prevent substantial duplication of costs to the Government. Therefore, it is recommended that this extension to the bridge contract be awarded to ARTS, as requested herein, under the authority of 10 USC 2304(c)(1).

Signature Page

Requirement Initiator:
Kevin Carey
Contracting Officer Representative

I certify that the facts presented in this justification are accurate and complete.

Signature Date

Contracting Officer:
Jill Willard

I hereby determine that the anticipated cost to the Government will be fair and reasonable and certify that this justification is accurate and complete to the best of my knowledge and belief. [FAR 6.303-2(a)(12)]

Signature Date

CONCURRENCE:

Directorate Manager:
David Korsmeyer, Director
Engineering Directorate

Signature Date

Procurement Officer:
Kelly G. Kaplan

Signature Date

Center Competition Advocate:
Lewis S.G. Braxton III
ARC Deputy Director

Signature Date

APPROVAL:

Head of the Contracting Activity:
S. Pete Worden
ARC Center Director

Signature Date

Attachment

cc (after approval):
JAB/241-1